

Amendments to the Claims

Please replace all prior versions and listings of the claims in the application with the following claim listing:

1. (Currently amended) A region of a gene construct encoding an antibody-based fusion protein comprising, the region including:
at its 5' end, nucleotides encoding at least a portion of an IgG1 or an IgG3 CH2 domain, with a mutation or a deletion reducing binding affinity for an Fc receptor, wherein said portion comprises a domain required for immunoglobulin protection receptor (FcRp) binding affinity, and
at its 3' end, linked to nucleotides encoding a non-Ig protein, wherein said CH2 domain is an IgG1 or an IgG3 CH2 domain comprising a mutation or a deletion that reduces binding affinity for an Fc receptor, and said antibody-based fusion protein has a longer circulating half-life *in vivo* than said antibody-based fusion protein without said mutation or deletion.
2. (Canceled)
3. (Currently amended) The region antibody-based fusion protein of claim 1, wherein said nucleotides encoding the portion of heavy chain comprises at least a portion of an IgG1 CH2 domain constant region having encode a mutation or a deletion at one or more amino acids selected from the group consisting of Leu₂₃₄, Leu₂₃₅, Gly₂₃₆, Gly₂₃₇, and Asn₂₉₇, and Pro₃₃₄.
4. (Currently amended) The antibody-based fusion protein of claim 1 An antibody-based fusion protein for administration to a mammal, said fusion protein comprising at least a portion of a CH2 domain, wherein said portion comprises a domain required for immunoglobulin protection receptor (FcRp) binding affinity, linked to a non-Ig protein, wherein said CH2 domain is an IgG3 CH2 domain comprising a mutation or a deletion that reduces binding affinity for an Fc receptor, and said antibody-based fusion protein has a longer circulating half-life *in vivo* than said antibody-based fusion protein without said mutation or deletion, wherein said portion of heavy chain comprises at least a portion

of an IgG3 constant region having a mutation or a deletion at one or more amino acids selected from the group consisting of Leu₂₈₁, Leu₂₈₂, Gly₂₈₃, Gly₂₈₄, Asn₃₄₄, and Pro₃₇₈.

5. (Canceled)
6. (Currently amended) The region antibody-based fusion protein of claim 1, wherein said ~~portion of heavy chain has substantially reduced binding affinity for a Fc receptor~~ is selected from the group consisting of FcγRI, FcγRII and FcγRIII.
7. (Currently amended) The region antibody-based fusion protein of claim 1, wherein said ~~second non-Ig protein is selected from the group consisting of a cytokine, a ligand-binding protein, and a protein toxin.~~
8. (Currently amended) The region antibody-based fusion protein of claim 7 ~~claim 1~~, wherein said cytokine is ~~selected from the group consisting of a tumor necrosis factor, an interleukin, and a lymphokine.~~
9. (Canceled)
10. (Currently amended) The region antibody-based fusion protein of claim 8, wherein said interleukin is interleukin-2.
- 11-26. (Canceled)
27. (Currently amended) An antibody-based fusion protein for administration to a mammal, the fusion protein comprising a variable domain and a portion of an IgG4 CH2 domain, the C-terminus of which is linked to the N-terminus of a non-Ig protein, wherein said antibody-based fusion protein has a longer circulating half-life *in vivo* than an antibody-based fusion protein comprising a portion of an IgG1 CH2 domain linked to said non-Ig protein.
28. (Canceled)
29. (New) The region of claim 1, wherein the region is fused at its 5' end to nucleotides encoding an immunoglobulin hinge region.

30. (New) The region of claim 1, wherein the region includes nucleotides encoding, in a 5' to 3' orientation, the at least a portion of an IgG1 or an IgG3 CH2 domain and at least a portion of a CH3 domain.